

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1 (previously presented): An electrode for electric discharge surface treatment comprising a compressed mixture of at least a powder of metal carbide and a powder of metal hydride from which hydrogen is desorbed before performing an electric discharge surface treatment operation.

Claim 2 (previously presented): The electrode for electric discharge surface treatment as defined in claim 1, wherein the metal carbide is titanium carbide and the metal hydride prior to hydrogen desorption is titanium hydride.

Claim 3 (previously presented): The electrode for electric discharge surface treatment as defined in claim 1, wherein the ratio of the powder of the metal carbide to the powder of the metal hydride is set according to desired electrode strength and crumbliness.

Claim 4 (previously presented): A manufacturing method of an electrode for electric discharge surface treatment as claimed in claim 1, comprising mixing at least a powder of metal carbide and a powder of metal hydride; compression molding and desorbing hydrogen in the metal hydride before performing an electric discharge surface treatment operation; and subsequently performing heat treatment to manufacture the electrode for electric discharge surface treatment.

Claims 5 and 6 (canceled).

Claim 7 (previously presented): An electrode for electric discharge surface treatment as claimed in claim 1, obtained by mixing at least a powder of metal carbide and a powder of metal hydride;

compression molding the mixture and desorbing hydrogen in the metal hydride before performing an electric discharge surface treatment operation; and

subsequently performing heat treatment to manufacture the electrode for electric discharge surface treatment.

Claims 8 and 9 (canceled).

Claim 10 (previously presented): A method for discharge surface treating a work using an electrical discharge machine comprising positioning an electrode as claimed in claim 1, comprising a compressed mixture of at least a powder of metal carbide and a powder of metal hydride from which hydrogen is desorbed before performing an electric discharge surface treatment operation opposite a material to be surface treated; and

forming a coating on the material by causing electrical discharge between the electrode and the material.

Claims 11 and 12 (canceled).

Claim 13 (previously presented): The electrode for electric discharge surface treatment as defined in claim 3, wherein the ratio of the powder of the metal carbide to the powder of the metal hydride is 1:9 to 9:1.

Claims 14-16 (canceled).

Claim 17 (previously presented): A manufacturing method of an electrode for electric discharge surface treatment comprising steps of;
mixing at least a powder of metal carbide and a powder of metal hydride;
performing compression molding of the mixture of the powders to form the electrode;
and subsequently
desorbing hydrogen from the hydride so as to manufacture the electrode comprising metal carbide and metal for electric discharge surface treatment.

Claim 18 (previously presented): The manufacturing method of an electrode for electric discharge surface treatment as defined in claim 17, wherein the metal carbide is titanium carbide and metal hydride is titanium hydride.

Claim 19. (previously presented): The manufacturing method of an electrode for electric discharge surface treatment as defined in claim 17, wherein a mixing ratio of the powder of the metal carbide to the powder of the metal hydride is set according to desired electrode strength and crumbliness.

Claim 20. (previously presented): The manufacturing method of an electrode for electric discharge surface treatment as defined in claim 19, wherein the ratio of the powder of the metal carbide to the powder of the metal hydride is 1:9 to 9:1.

Claim 21 (new): The manufacturing method of an electrode for electric discharge surface treatment as defined in claim 4, characterized in that the metal carbide is titanium carbide and the metal hydride is titanium hydride.

Claim 22 (new): The manufacturing method of an electrode for electric discharge surface treatment as defined in claim 4, wherein a mixing ratio of the powder of the metal carbide to the powder of the metal hydride is set according to desired electrode strength and crumbliness.

Claim 23 (new): The manufacturing method of an electrode for electric discharge surface treatment as defined in claim 22, wherein the mixing ratio of the powder of the metal carbide to the powder of the metal hydride is 1:9 to 9:1.

Claim 24 (new): The electrode for electric discharge surface treatment as defined in claim 7, wherein the metal carbide is titanium carbide and the metal hydride is titanium hydride.

Claim 25 (new): The electrode for electric discharge surface treatment as defined in claim 7, wherein the ratio of the powder of the metal carbide to the powder of the metal hydride is set according to desired electrode strength and crumbliness.

Claim 26 (new): The electrode for electric discharge surface treatment as defined in claim 25, wherein the ratio of the powder of the metal carbide to the powder of the metal hydride is 1:9 to 9:1.

Claim 27 (new): The method as defined in claim 10, wherein the metal carbide is titanium carbide and the metal hydride is titanium hydride.

Claim 28 (new): The method as defined in claim 10, wherein the ratio of the powder of the metal carbide to the powder of the metal hydride is set according to desired electrode strength and crumbliness.

Claim 29 (new): The electrode for electric discharge surface treatment as defined in claim 28, wherein the ratio of the powder of the metal carbide to the powder of the metal hydride is 1:9 to 9:1.